with more severe nephritis, an induction course of immuno-suppressive therapy is recommended—typically, intravenous cyclophosphamide (IVC) or mycophenolate mofetil (MMF), followed by a maintenance course, typically of azathioprine. The objective is to determine which induction therapy results in better quality of life for patients, and which represents best value for money. METHODS: A patient-level simulation is used to model the total costs and QALYs gained of a patient treated with either IVC or MMF for an induction period of six months. Efficacy data are extracted from a systematic review of randomised controlled trials, and utility, resource and unit cost data from published sources and standard databases. The perspective and setting of the model is the English NHS and the price year, 2005. An incremental analysis demonstrates the relative cost-effectiveness of the two options. RESULTS: On average, MMF is more effective (resulting in improved quality of life) when compared with IVC (mean 0.039 QALYs gained over six months). MMF therapy is less expensive overall than IVC, on average £1600 less over the period. Therefore, MMF dominates IVC. The major determinant and cost driver of this result is the requirement for a day-case procedure to administer IVC. Analysis of uncertainty shows an 81% probability that MMF will be cost-effective compared with IVC at a willingness to pay of approximately £21320,000 per QALY gained. CONCLUSION: Treatment with MMF is likely to be more effective and less expensive overall than IVC as induction therapy for LN.

PUK13

PANEL DATA ANALYSIS SHOWS PERITONEAL DIALYSIS TO BE NEGATIVELY ASSOCIATED WITH HOSPITALIZATION AT THE STATE LEVEL

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OBJECTIVES: Hemodialysis (HD) and peritoneal dialysis (PD) are the two main types of dialysis therapy performed on patients with ESRD. The United States Renal Data System (USRDS) produces, among a host of other types of data, annual State-level data related to dialysis and hospitalizations. Panel data sets (cross-sectional time series) can be created from these USRDS data to estimate the impact of dialysis therapy on hospitalization rates at an aggregate level. The objective of this study is to assess the relationship of hospitalizations and dialysis therapies using USRDS State-level data. METHODS: Data used in the analysis were obtained from the 1999 through 2005 Annual Data Reports on the USRDS Web site. The data covers the fifty states plus Washington D.C. for the years 1997 through 2003. Regression analysis was performed on the panel data using the TSCSREG procedure in SAS 9.1. A one-way fixed effects model was used. The dependent variable was the Standardized Hospitalization Ratio (SHR). SHR is the ratio of observed over expected hospitalization events in the ESRD population. The independent variables included in the regression analysis were dialysis modality, demographics, and other State-level data. RESULTS: The adjusted R2 for the estimated regression model was 0.88. The results showed that the percent of dialysis patients on PD was negatively associated with SHR (p < 0.01) whereas HD was positively associated with SHR (p < 0.01). In addition, an interaction term between the percent of the ESRD population with diabetes and the percent of the State population under 65 years of age was positively associated with SHR (p < 0.0001). CONCLUSION: A robust econometrics model on aggregate State-level USRDS data showed PD was negatively associated with hospitalization. Policymakers and payers need to carefully consider the impact of health care policy on dialysis modality choice and thus on costs.

PUK14

ANEMIA-RELATED TREATMENT VARIATIONS IN WOMEN WITH CHRONIC KIDNEY DISEASE IN US OUTPATIENT SETTINGS

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OBJECTIVES: Women with chronic kidney disease (CKD) are often at risk of having anemia. This study examined the variation in anemia care of CKD among women in outpatient settings in the U.S. METHODS: This cross-sectional study used data from the National Ambulatory Medical Care Survey (NAMCS) from 1996–2003. Women aged 18 years and older with CKD were included in the study sample based on clinical diagnoses and the reason for the visit. Anemia diagnoses were retrieved using clinical diagnoses and anemia-related medications (Erythropoietic stimulating agents or iron replacement) were retrieved using the NAMCS drug codes. All analyses were weighted to make national estimates. RESULTS: There were approximately 58 million weighted outpatient visits for women with CKD in the outpatient settings from 1996 to 2003. Nearly 14% of these visits were related to Hispanics and 50% of these visits were by patient aged 65 years and older. Nephrologists accounted for only 15% of CKD patient visits and 58% of these patients had a diagnosis of anemia. Only 11% of visits with anemia resulted in prescription for anemia related medication (erythropoietin stimulating agents or iron replacement). Women with Medicare coverage were 2.6 times more likely (p ≤ 0.05) to be seen by nephrologists. Women seen by nephrologists were 2.4 times more likely (p ≤ 0.05) to receive a prescription for an erythropoietin stimulating agent compared to patients seen by non-nephrologists. Additionally, PCPs were less likely (p ≤ 0.05) to prescribe erythropoietin stimulating agents compared to non-PCPs. CONCLUSION: The findings of this study suggest that PCPs are less likely to prescribe anemia medications in US outpatient settings compared to non-PCPs. Increased awareness of the impact of early treatments of anemia among women with CKD is needed in outpatient settings in the U.S.

PUK15

DRUG UTILIZATION AND COSTS OF ERYTHROPOIETIC AGENTS IN ELDERLY PATIENTS WITH CHRONIC KIDNEY DISEASE

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OBJECTIVES: To understand current real-world utilization of erythropoietic agents, this study examined epoetin alfa (EPO) and darbepoetin alfa (DARB) dosing patterns and treatment costs in elderly patients with chronic kidney disease (CKD) not receiving dialysis. METHODS: A retrospective analysis was conducted using medical claims from approximately 35 health plans nationwide during the period of January 2004 through February 2006. To be included in the analysis, patients were required to be 265 years old, have ≥2 EPO or DARB claims, have a CKD diagnosis within 90 days prior to EPO or DARB initiation, and be newly initiated on either agent. If a patient received renal dialysis, data were censored 30 days prior to the first date of dialysis. Patients diagnosed with cancer or that received chemotherapy were excluded. Mean weekly doses weighted by treatment duration were used to calculate drug costs based
on September 2006 wholesale acquisition costs (EPO: $0.01217/Unit, DARB: $4.446/mcg). RESULTS: 439 patients (296 EPO, 143 DARB) met the entry criteria and formed the study population. The two groups of patients had similar mean age (years; EPO 74.9 vs. DARB 74.3) and gender distribution (female; EPO 51.0% vs. DARB 51.8%). Use of extended dosing regimens (every two weeks [≥2W]) was observed in the majority of patients in both groups (EPO: 71%; DARB: 92%). The mean (SD) dose per injection was 25,987 (19,298) Units for EPO and 114.9 (131.1) mcg for DARB. The weighted average (SD) weekly dose was 13,879 (12,121) Units for EPO and 54.5 (50.2) mcg for DARB, corresponding to an average weekly erythropoietic drug cost of $169 for EPO and $242 for DARB (P < 0.0001). CONCLUSION: This retrospective claims analysis reported use of extended dosing (≥2W) of both EPO and DARB in CKD patients aged 265 years. Weekly DARB costs were 43% higher than EPO.

URINARY/KIDNEY—Patient-Reported Outcomes

Puk16

ASSESSMENT OF ADHERENCE WITH IMMUNOSUPPRESSANT MEDICATIONS IN TRANSPLANT PATIENTS AND THE POTENTIAL COST SAVINGS ASSOCIATED WITH INCREASED ADHERENCE

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OBJECTIVES: To estimate adherence with immunosuppressant medications in transplant patients served by a group of five specialty pharmacies and to assess the medical cost avoidance associated with improved adherence, where possible. METHODS: Prescription fill data were obtained from five specialty pharmacies for Medicare patients who had prescriptions filled from January 2005 to June 2005 for one of the following medications: azathioprine, mycophenolate mofetil, mycophenolic acid, and sirolimus. Patients were eligible for analysis if they had a prescription filled in both January and June. Medication possession ratios (MPRs) were calculated for each medication over the study period. Patients with MPRs > 0.8 were classified as adherent. Literature-based adherence estimates were obtained for comparison. The 2005 US Renal Data System Annual Data Report was used to gather clinical and economic outcome data for a decision analysis to determine whether differences in adherence resulted in potential cost avoidance associated with a rejected renal graft. RESULTS: In the 1599 eligible patients, the estimated adherence rate was 84.2%, which was significantly higher than the literature-based estimate of 65% (p < 0.01). After applying the adherence estimates to current Medicare cost estimates for functioning renal grafts and failed renal grafts, the estimated yearly cost in study pharmacy patients was $27,853 versus $32,003 using literature-based adherence estimates—a potential cost savings of $4150 per patient per year. CONCLUSION: These findings suggest that the reduced risk of rejection associated with increased adherence with immunosuppressant agents translates into avoidance of significant costs associated with failed renal grafts. Compared to traditional mail-order or retail pharmacies, the service model used by the study pharmacies involves high levels of patient contact to promote adherence. Policies to ensure appropriate reimbursement, such as CMS's proposed pay-for-performance framework, would be an important step to support and promote optimal patient care.

PUK17

STRESS URINARY INCONTINENCE: EFFECT OF OBESITY IN PATIENTS' PERCEPTION OF HEALTH RELATED QUALITY OF LIFE

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OBJECTIVES: Stress urinary incontinence (SUI) is a common condition in women, caused by anatomical problems related to factors such as age, parity, white race, hormonal state, higher educational attainment, pregnancy related factor and higher body mass index. Several studies indicate obesity as an important SUI related factor. This study was conducted to investigate the impact of obesity in the quality of life of women with urinary incontinence. METHODS: Women with the symptom of SUI were recruited prospectively over a 3-months period from a tertiary referral urogynaecology center in a teaching hospital. A group of 86 women complaining of SUI and confirmed as having SUI on urodynamic assessment agreed to participate. The King's Health Questionnaire (KHQ) was applied before any treatment to assess the impact of SUI in the quality of life. We then divided the patients in two groups, obese and non obese women, according to their BMI (>30 BMI and <30 BMI) and compared them using Student t test. RESULTS: There were 25 patients in the obese group and 61 in the non obese group. There were no statistical differences between the groups concerning, age, number of pregnancies, height and daytime frequency. The obese patient group was heavier (p < 0.0000), with greater BMI (p < 0.0000) with an also statistically greater nighttime frequency (p = 0.0147). The obese group had more time of SUI symptoms complain (p = 0.0268). Of the evaluated domains of the KHQ (general health perception, incontinence impact, role limitations, physical limitations, social limitations, personal relationships, emotions, sleep/energy, severity measures) only the severity measures were statistically different among these two groups (p = 0.0093). CONCLUSION: Obesity seems to aggravate the perception of the severity of the urinary incontinence problem in women.

PUK18

LINGUISTIC VALIDATION OF THE NOCTURIA QUALITY OF LIFE (N-QOL) QUESTIONNAIRE IN 10 LANGUAGES

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OBJECTIVES: The objective of this study was to evaluate the linguistic validity of 10 translations of the Nocturia Quality of Life (N-QOL) questionnaire. This self-administered questionnaire was originally developed in English (UK) to measure the impact of nocturia on health-related quality of life in men with lower urinary tract symptoms (LUTS), and has since been validated for use in women. METHODS: Harmonized translations of the questionnaires were created through an internationally accepted iterative process of forward and back translations and review by a survey research expert and local study users for the following languages: Afrikaans (South Africa), Chinese (Taiwan), English (Canada), English (South Africa), English (USA), French (Canada), Korean (Korea), Spanish (Mexico), Swedish (Sweden), and Turkish (Turkey). All translators were native speakers of the target language and fluent in English (UK). A diverse sample of 5 subjects in each language reviewed the harmonized translations and was subsequently debriefed by trained bilingual interviewers, fluent in both English (UK) and the target language. A team consisting of the original translators, back